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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/195,080	11/18/1998	KEIKO ABE	FUJA-15.646	3931
26304	7590	01/25/2005	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			HARPER, KEVIN C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/195,080

Applicant(s)

ABE ET AL.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 and 12-14 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments regarding claims 1-4 and 9-11 filed September 16, 2004, have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 5-8 and 12-14 have been fully considered and are persuasive. The rejection of claims 5-8 and 12-14 has been withdrawn.

1. Applicant argued that Nagami does not disclose a cell signal switching apparatus, a short cut controller, and a routing device as claimed. However, in Figures 54-55, Nagami discloses a similar structure as in Figures 1A, 1B 5, and 7 of the present invention, such that a layer-2 packet is switched at layer-2 if the proper routing information is known, and if not, layer-3 information within the packet is used to determine the layer-2 routing. Thus a routing device (represented by functionality of Figure 4, items 204 and 207) uses layer-3 information when shortcut processing is determined to be inapplicable (Figure 7, step S2; para. 170) by a shortcut controller (represented by functionality of Figure 4, items 203-206) that caches outgoing information (Figure 7, step S11; para 369).

2. Applicant argued that Nagami does not disclose caching outgoing routing data as layer-2 output data. However, the layer-2 data is cached in order to facilitate bypass switching (para. 174; para. 369) as determined from layer-3 routing data.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagami et al. (US 2001/0056490).

3. Regarding claims 1-2 and 9, Nagami discloses a packet transfer apparatus (Figures 1 and 55; abstract) for transferring cells (or frames) among first and second nodes (Figure 55, items 11) and a routing device (items 11, ROUTER; para. 9, lines 1-3). The connection between the switch and the routing device is fixed (Figures 4-5, 7; Figure 6, standard bus I/F; para. 150-155). Each node and router has an inherent interface and the routing device determines an outgoing route for the cells according to destination data contained in the cells (Figure 7; Figure 12, step S162). Each ATM cell is made from or encapsulated in an IP packet (Figure 7, steps S3) having destination data. The packet transfer apparatus comprises a switch (Figures 54-55, items 11; note: crossbar switch below router), a memory for caching outgoing routing data (Figure 7, items t3 and t2; step S9-S11), and a shortcut controller (Figure 4, item 203-206; Figure 7, item S2, T1 and S6; paras. 169 and 171; para. 369) for forming a shortcut to transmit the cell directly from the first node to the second node (Figure 12, step S165; Figures 13, 54 and 55) without routing by the routing device (para. 119) when the outgoing route data contained in an input cell is equal to outgoing route data cached in the memory (Figure 7, steps S2 and S6; para. 369), and otherwise, caching outgoing route data for the input cell into the memory (step S11; paras. 174, 185 and 187, lines 1-3) after the input cell has been transmitted to the routing device and back (Figure 7, steps S3-S4, S8, S11 and S12), and after the input cell has been routed to the second node by the routing device (Figure 7, steps S8-S13).
4. Regarding claim 3, the ATM cell is AAL5 (para. 418, last sentence; para. 430).
5. Regarding claim 10, the nodes transmit data according to frame relay (para. 38).

Art Unit: 2666

6. Regarding claims 4 and 11, the output route data includes a destination address and an outgoing port number (Figure 7, items t1 and t4; para 369).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications


Art Unit: 2666

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only (applications must be associated with a customer number). For more information about the PAIR system, see [portal.uspto.gov](http://portal.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

January 11, 2005



SEEMA S. RAO 1/21/05  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800